

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CARL T. HARDIN, JAMES E. PETRANOVICH, KUMAR BALACHANDRAN
and ANDREW WRIGHT

Appeal No. 2001-0950
Application No. 08/534,855

ON BRIEF

Before FLEMING, GROSS, and LEVY, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge.***

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 31.

The invention relates to a wireless communication system to limit power expenditure in the wireless subscriber station. The wireless communication system includes at least one base station for transmitting a communication stream of message blocks to a plurality of wireless subscriber stations. The method includes the steps of monitoring the communication stream for Temporary Equipment Identified (TEI) message blocks where the TEI message blocks include TEI messages and a plurality of Forward Error

Correction (FEC) bits. The method also includes the step of determining a Base Error Rate (BER). The method further includes the step of decoding the FEC bits only when the BER is above a predetermined level. See Appellants' specification on page 21, lines 7 through 21.

The second aspect of the invention includes a method of communicating between a base station and a plurality of wireless subscriber stations in a wireless communication system in which the base station controls a stream of message blocks including a plurality of TEI messages corresponding to respective ones of a plurality of the subscriber stations. The method includes the steps of arranging all the TEI messages in a continuous group and beginning the group of TEI messages with a unique TEI message and ending the group of TEI messages with a second unique TEI message. The unique TEI messages differ from all other TEI messages by at least six characters. See Appellants' specification on page 21, lines 22 through 34.

Independent claim 1 is reproduced as follows:

1. A method of operating a wireless subscriber station in a wireless communications system to limit power expenditure in said wireless subscriber station, said wireless communications system including at least one base station for transmitting a communication stream of message blocks to a plurality of wireless subscriber stations, said method comprising the steps of:

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(a) monitoring said communication stream for Temporary Equipment Identifier (TEI) message blocks, said TEI message blocks comprising TEI messages and a plurality of Forward Error Correction (FEC) bits;

(b) determining a Base Error Rate (BER) by comparing known bits of the communication stream with received bits of the communication stream; and

(c) decoding said FEC bits only when said BER is above a predetermined level.

References

The references relied on by the Examiner are as follows:

Dahlin	5,199,031	Mar. 30, 1993
Stengel et al. (Stengel)	5,265,270	Nov. 23, 1993

Rejections at Issue

Claims 1, 3, 19, 21, and 28-31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Stengel.

Claims 2, 4-18, 20, and 22-27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dahlin in view of Stengel.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Brief¹ and the Answer for the respective details thereof.

¹Appellants filed an appeal brief on September 21, 2000, Paper No. 20. In response, the Examiner's Answer, Paper No. 21, was mailed on November 16, 2000.

OPINION

With full consideration being given to the subject matter on appeal, the Examiner's rejections and the arguments of Appellants and Examiner, for the reasons stated *infra*, we reverse the Examiner's rejections of claims 3, 21, 28 and 30 under 35 U.S.C. § 102(b) and affirm the rejection of claims 1, 19, 29 and 31 under 35 U.S.C. § 102(b). In regards to the 35 U.S.C. § 103 rejections, we reverse the Examiner's rejections of claims 2, 4-18, 20, 22-24, and 27 and affirm the rejection of claims 25-26.

We first will address the rejection of claims 1, 3, 19, 21, and 28-31 under 35 U.S.C. § 102(b) as being anticipated by Stengel. For claim 1, Appellants argue that Stengel does not teach or suggest step (b) of claim 1, determining a base error rate by comparing known bits of the communication stream with received bits of the communication stream. In addition, Appellants argue that Stengel does not indicate whether FEC bits are decoded as a function of the signal level, step (c) of claim 1. See Appeal Brief, Page 5, lines 12-16.

Upon review, we sustain the rejection of claim 1. Step (b) of claim 1 recites "determining a BER by comparing known bits of the communication stream with received bits of the communication stream." See Appeal Brief, Page 16, lines 9-10. In column 6,

lines 3-7, Stengel teaches that signal quality of the received signals can be determined by comparing the bit error rates of the incoming signals to a predetermined rate threshold. Step (c) of claim 1 recites "decoding said FEC bits only when said BER is above a predetermined level." See Appeal Brief, Page 16, line 11. In column 8, lines 37-45, Stengel teaches the decoding of incoming information signals (outbound signaling word or OSW), if the quality of the received signals is at least as good as the stored value. Therefore, we find that Stengel teaches steps (b) and (c) as recited in Appellants' claim 1.

For claim 3, Appellants argue that this claim contains the further limitation that the "BER is determined by comparing known bits of TEI overhead messages with received bits of the TEI overhead messages." See Appeal Brief, Page 5, line 19-20. Upon review, we fail to find any evidence that Stengel teaches or suggests the use of known bits of TEI overhead messages.

For claim 19, Appellants argue that Stengel does not teach or suggest "a decoder for decoding said FEC bits only when said BER is above a predetermined level." See Appeal Brief, Page 6, lines 1-2. As pointed out above, we have found that Stengel teaches a decoder for decoding FEC bits only when the BER is above a predetermined level. Upon review, we will sustain the

rejection of claim 19 based on the reasoning for sustaining the rejection of claim 1.

For claim 21, Appellants argue that there is no teaching or suggestion in Stengel that bit error rate could be determined by "comparing known bits of TEI overhead messages with received bits of the TEI overhead messages." See Appeal Brief, Page 7, lines 21-24. Upon review, we fail to find any evidence that Stengel teaches or suggests the use of known bits of TEI overhead messages.

For claim 28, Appellants further argue that there is no teaching or suggestion in Stengel of "a transmission control mechanism for arranging the plurality of TEI messages in a continuous group" let alone of "beginning said group of TEI messages with a unique TEI message and ending said group of TEI messages with a second unique TEI message." See Appeal Brief, Page 7, lines 19-26 and Page 8, lines 1-4. Upon review, we fail to find any evidence that Stengel teaches or suggests a transmission control mechanism for arranging the plurality of TEI messages in a continuous group and for beginning the group of TEI messages with a unique TEI message and ending the group of TEI messages with a second TEI message.

For claim 29, the Appellants argue that the Examiner has not shown, a memory medium, said memory medium having stored thereon a program for (1) operating a wireless subscriber station, (2) controlling a base station and (3) communicating between said base station and a plurality of wireless stations as required respectively by the claims. Appellants further argue that the claim requires "decoding said FEC bits only when said BER is above a predetermined level" and the Stengel reference does not show this. See Appeal Brief, Page 8, lines 5-9.

Upon review, we will sustain the rejection of claim 29 based on the reasoning for sustaining the rejection of claim 1. As pointed out above, we have found that Stengel teaches a decoder for decoding FEC bits only when the BER is above a predetermined level. Also, the limitation of the claim in a memory medium is taught by Stengel. In particular, Stengel teaches the use of a digital communication system with a Smartnet central controller manufactured by Motorola. See Stengel, Column 3, line 68 and Column 4, line 1. This a computer having a memory medium storing a program for (1) operating a wireless subscriber station, (2) controlling a base station and (3) communicating between a base station and a plurality of wireless stations. Therefore, we find that Stengel teaches the above limitation recited in claim 29.

For claim 30, Appellants further argue that Stengel does not teach or suggest "a plurality of TEI messages corresponding to respective ones of a plurality of said subscriber stations" nor "arranging the plurality of TEI messages in a continuous group and for beginning said group of TEI messages with a unique TEI message and ending said group of TEI messages with a second unique TEI message." See Appeal Brief, Page 8, lines 10-14. Upon review, we fail to find any evidence that Stengel teaches or suggests a transmission control mechanism for arranging the plurality of TEI messages in a continuous group and for beginning the group of TEI messages with a unique TEI message and ending the group of TEI messages with a second TEI message.

For claim 31, Appellants further argue that the claim requires "decoding said FEC bits only when said BER is above a predetermined level" and this is not taught by Stengel. See Appeal Brief, Page 8, lines 15-16. As pointed out above, we have found that Stengel teaches a decoder for decoding FEC bits only when the BER is above a predetermined level. Upon review, we will sustain the rejection of claim 31 based on the reasoning for sustaining the rejection of claim 1.

We next turn to the rejection of claims 2, 4-18, 20, and 22-27 under 35 U.S.C. § 103 as being unpatentable over Dahlin in

view of Stengel. For claim 2, Appellants argue that Dahlin and Stengel fail to teach "unique TEI messages differ from all other TEI messages by at least six characters eliminating the necessity of decoding the plurality of FEC bits." See Appeal Brief, Page 9, lines 7-8. For claim 9, Appellants argue that the references fail to teach "unique TEI messages differ from all other TEI messages by at least six characters." See Appeal Brief, Page 10, line 23 and Page 11, line 1. For claim 20, Appellants argue that the claim requires "a transmission control mechanism for arranging the plurality of TEI messages in a continuous group, and beginning said group of TEI with a unique TEI message and ending said group of TEI messages with a second unique TEI message where said unique TEI messages differ from all other TEI messages by at least six characters." See Appeal Brief, Page 12, lines 22-23 and Page 13, lines 1-3.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a *prima facie* case of obviousness. ***In re Oetiker***, 977 F.2d 1443, 1445, 24 USPQ 1443, 1444 (Fed Cir. 1992). See also ***In re Piasecki***, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary

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skill in the art suggests the claimed subject matter. ***In re Fine***, 87 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant. ***Oetiker***, 977 F.2d at 1445, 24 USPQ at 1444. ***See also Piasecki***, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all the evidence and arguments." ***In re Oetiker***, 977 F.2d at 1445, 24 USPQ2d at 1444. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." ***In re Lee***, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). With these principles in mind, we commence review of the pertinent evidence and arguments of Appellants and Examiner.

Upon our review, we find that Dahlin and Stengel fail to teach that unique TEI messages differ from all other TEI messages by at least six characters. Therefore, we cannot sustain the rejection of claims 2, 9, and 20. Since claims 4-8, 10-18, and

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22-24 are dependent on independent claims 2, 9, and 21, we also cannot sustain the art rejections of these claims.

In regard to claim 25, Appellants argue that the references do not teach or suggest a

method of operating a wireless subscriber station and a wireless communication system having a base station in which said base station controls a stream of message blocks including a plurality of TEI messages corresponding to respective ones of a plurality of said subscriber stations . . . monitoring said communication stream for TEI blocks; . . . and decoding said FEC bits only when said BER is above a predetermined level.

As pointed out above, we have found that Stengel teaches a decoder for decoding FEC bits only when the BER is above a predetermined level. See Appeal Brief, Page 13, line 23 and Page 14, lines 1-6. Upon review, we sustain the rejection of claim 25.

For claim 26, Appellants argue that the references do not teach or suggest the requirement that the "BER is determined by comparing known bits contained in a communication stream with received bits from the communication stream." See Appeal Brief, Page 14, lines 8-10. As pointed out above, we have found that Stengel teaches a BER determined by comparing known bits contained in a communication stream with received bits from the

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communication stream. Upon review, we sustain the rejection of claim 26.

For claim 27, Appellants argue that the references do not teach or suggest the requirement that "the BER is determined by comparing known bits of TEI overhead messages with received bits of TEI overhead messages." See Appeal Brief, Page 14, lines 12-13. Upon review, we fail to find any evidence that Stengel teaches or suggests the use of known bits of TEI overhead messages.

In conclusion, we sustain the rejection of claims 1, 19, 29, and 31 under 35 U.S.C. § 102(b) and claims 25 and 26 under 35 U.S.C. § 103. We cannot sustain the rejection of claims 3, 21, 28 30 under 35 U.S.C. § 102(b) and 2, 4-18, 20, 22-24, and 27 under 35 U.S.C. § 103 .

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
ANITA PELLMAN GROSS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
STUART S. LEVY)	
Administrative Patent Judge)	

MRF/lbg

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MICHAEL G. FLETCHER
FLETCHER, YODER & VAN SOMEREN
P.O. BOX 692289
HOUSTON, TX 77269-2289